

REMARKS

Claims 1-4, 6-11, and 13-17 are pending in this application. By this Amendment, claims 5, 12, 18 and 19 are canceled without prejudice or disclaimer, and claims 1, 7, 8, and 14-17 are amended. Support for the amendment may be found in, for example, at least Figures 1 and 10 and the corresponding disclosures, including paragraphs [0030] and [0052]-[0054]. The amendment introduces no new matter.

Applicants appreciate the courtesies shown to Applicants' representative by Supervisory Examiner Moe and Examiner Tyler in the June 5 personal interview. Applicants' separate record of the substance of the Interview is incorporated into the following remarks. Reconsideration of the application is respectfully requested.

I. Formal Matters

The Office Action objects to the Specification because of informalities. The Specification is amended to correct the informalities. Accordingly, Applicants respectfully request the withdrawal of the objection to the Specification.

The Office Action objects to claims 1 and 16-19 because of informalities. Claims 18 and 19 are canceled. Claims 1, 16, and 17 are amended to obviate the objection. Accordingly, Applicants respectfully request the withdrawal of the objections to the claims.

II. Claims Define Patentable Subject Matter

A. Claim 17 recites Patent Eligible Subject Matter

Applicants traverse the Examiner's rejection of claim 17 under 35 U.S.C. § 101 for not being limited to tangible media. However, to expedite prosecution, Applicants amend claim 17 as agreed to during the interview. Accordingly, Applicants request that the § 101 rejection of claim 17 be withdrawn.

B. Claims 1-17 are Patentable Over Cited Prior Art

The Office Action: (1) rejects claims 1-3, 6, 8-10, 13, and 15-17 under 35 U.S.C. § 102(b) as being anticipated by Williams et al. (U.S. Patent No. 6,229,923; hereinafter Williams); (2) rejects claims 1, 4, 5, 8, 11, and 12 under 35 U.S.C. § 102(b) as being anticipated by Eglit (U.S. Patent No. 6,011,538); (3) rejects claims 18 and 19 under 35 U.S.C. § 102(b) as being anticipated by Merz et al. (U.S. Patent No. 6,246,776; hereinafter Merz); (4) rejects claims 7 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Williams in view of Eglit et al. (U.S. Patent No. 5,333,064; hereinafter Eglit). Claims 18 and 19 are canceled, thus rendering moot the rejection of those claims based on Merz. Applicants respectfully traverse the remaining rejections as they pertain to the pending claims.

Williams fails to disclose or suggest a single channel method for estimating a halftone screen frequency from image data, the method including at least adding a multiplied frequency measurement signal to an image data signal to produce an output signal, adjusting the factor multiplied to the frequency measurement signal based on a control signal, wherein the control signal is based on a characteristic of the image data, and interpolating the output signal to produce the halftone screen frequency estimate, as recited in independent claim 1 and similarly recited in independent claims 8 and 15.

Specifically, Williams teaches an image classification system that classifies a pixel of an image as one of multiple image types (Williams, Abstract; Figs. 7-12). Williams discloses that the image classification system may incorporate a fuzzy image classifier 80 to process the image (Williams, col. 21, ll. 9-17). Williams also teaches that, as an alternative to fuzzy image classifier 80 (Williams, col. 24, ll. 9-22), its image classification system may incorporate a look-up table 300 that classifies the image's pixels based on values extracted by classifiers 100 and reduced by reducers 200 (Williams, col. 24, line 23-col. 26, line 41). However, Williams fails to disclose at least adjusting the factor multiplied to the frequency

measurement signal based on a control signal, wherein the control signal is based on a characteristic of the image data, and interpolating the output signal to produce the halftone screen frequency estimate, as recited in independent claim 1 and similarly recited in independent claims 8 and 15. Therefore, Williams fails to teach, suggest, or render obvious a single channel method for estimating a halftone screen frequency from image data, as recited in claim 1 and similarly recited in independent claims 8 and 15.

Seidner teaches a descreening method that removes screen information from a halftone image (Seidner, Abstract), but fails to cure the deficiencies of Williams. Therefore, a combination of Williams and Seidner would not have arrived at the subject matter as recited in independent claim 1 and similarly recited in independent claims 8 and 15.

Next, Eglit also fails to disclose a single channel method for estimating a halftone screen frequency from image data as recited in independent claim 1 and similarly recited in independent claims 8 and 15. Eglit discloses a digital display unit having an analog to digital converter that, when an input analog display signal exceeds the maximum sampling frequency of the converter, samples the input analog display signal in an interleaved manner (Eglit, Abstract). Eglit, however, does not teach or suggest estimating a halftone screen frequency from image data as recited in independent claim 1 and similarly recited in independent claims 8 and 15.

In accordance with the above remarks, independent claims 1, 8, and 15 define patentable subject matter. Claims 2-4, 6, 7, 9-11, 13, 14, 16, and 17 depend from one of claims 1, 8, and 15, and therefore are also patentable for the same reasons, as well as for the additional features they recite. Accordingly, Applicants respectfully request the withdrawal of the rejections of claims 1-4, 6-11, and 13-17.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration of claims and prompt allowance of claims 1-4, 6-11, and 13-17 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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